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**Dueck**

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(54) **RETRACTABLE LOAD SUPPORT SYSTEM**

(75) Inventor: **Raymond Dueck**, Arborg (CA)

(73) Assignee: **Vidir Machines, Inc.**, Arborg (CA)

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This patent is subject to a terminal disclaimer.

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(51) **Int. Cl.**  
**B66D 1/00** (2006.01)

(52) **U.S. Cl.** ..... **254/277; 254/376**

(58) **Field of Classification Search** ..... **254/277, 254/375, 376, 377**

See application file for complete search history.

*Primary Examiner*—Emmanuel M Marcelo

(74) *Attorney, Agent, or Firm*—Neustel Law Offices

(57) **ABSTRACT**

A retractable load support system for effectively lifting a load in a controlled manner. The retractable load support system includes a frame, a gerotor attached to a main shaft within said frame, a first spool attached to the gerotor, a biasing device connected to the first spool applying a biasing force to the first spool and an elongated member attached to the first spool. The main shaft is rotatably supported within the frame by a one way bearing allowing the main shaft to rotate when the elongated member is drawn downwardly to reduce the resistance of the gerotor. The main shaft is supported substantially stationary within the frame by the one way bearing preventing the main shaft from rotating when the elongated member is drawn upwardly onto the first spool thereby lifting the load in a controlled manner.

**20 Claims, 16 Drawing Sheets**

